# Instructions for executing the experiments

I have solved the tasks set in the exams sheet in the Python3 programming language.

All the code can be found in the "Exam/" folder in the attached USB Drive.

I have created for the purpose two scripts for running the experiment necessary for question 3 of the exam sheet:

- `Experiment_NaiveDB.py`: this script executes a conjunctive query with the NaiveDB Engine
- `Experiment_IncDB.py`: this script executes a conjunctive query with the IncDB Engine. It recognizes the representation to use from the query supplied, if you supply a binary conjunctive query as in Question 1 then it will use the representation developed for Question 1 (a), otherwise for arbitrary queries it will use representation developed for Question 1 (b) (c).

The script executes the conjunctive query under the sets of inserts (I1, …., I5) and deletes (D1, …, D5) with a timeout of 3600 seconds (if a conjunctive query under a set of inserts/deletes takes more than the threshold than it stops executing that as we can assume that

Let's suppose you want to run the conjunctive query R1(A,B), R2(A, C) with the NaiveDB Engine it is sufficient to run the command:

```
python3 Experiment_NaiveDB.py 1 2
```

Let's suppose you want now to run the query COUNT[R1(A,B), R2(A, C)] under the IncDB Engine you just need to run the command:

```
python3 Experiment_IncDB.py 1 2 –count
```

Let's suppose you want now to run the query R1(A,B), R2(A, C), R4(A,D) under the IncDB Engine you just need to run the command:

```
python3 Experiment_IncDB.py 1 2 4
```

Let's suppose you want now to run the query COUNT[R1(A,B), R2(A, C), R4(A,D)] under the IncDB Engine you just need to run the command:

```
python3 Experiment_IncDB.py 1 2 4 -count
```

The scripts print on the command line prompt the values to be included in a hypothetic plot of the engine for a given conjunective query.